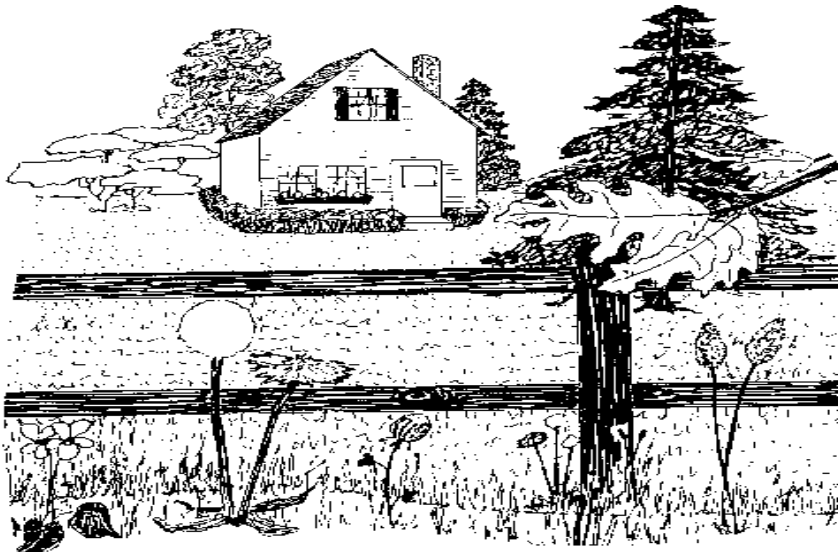


# ***Westmoreland Cleanways Guide to Home Composting***



*"Keep Westmoreland County Beautiful"  
an Affiliate of Keep America Beautiful since 2011*

***"The soil is the placenta of life.."***  
*Author unknown*



## **Westmoreland Cleanways Guide to Home Composting Table of Contents**

Introduction	Page 3
1. What is Compost	
2. Why Compost	
3. Mechanics of Composting	
Getting Started	Page 3
1. Two Methods of Composting	
2. Elements of a Compost Pile	
3. Bin Construction	
4. Make Your Pile	
5. Fine Tuning Your Compost Pile	
6. Using Your Finished Compost	
Materials that Should/Should Not be in a Compost Pile	Page 6
Persistence of Common Herbicides in Soil	Page 6
Composting Methods – Comparison	Page 7
Three Compost Recipes	Page 8
Recycling Turfgrass Clippings	Page 9
What’s Happening Here? – Troubleshooting Guide	Page 11
Active vs. Passive Composting	Page 12
In-Ground Systems	Page 13
Plans for Constructing Compost Bins	Page 14
Westmoreland Cleanways—What We’re All About	Back

## Introduction

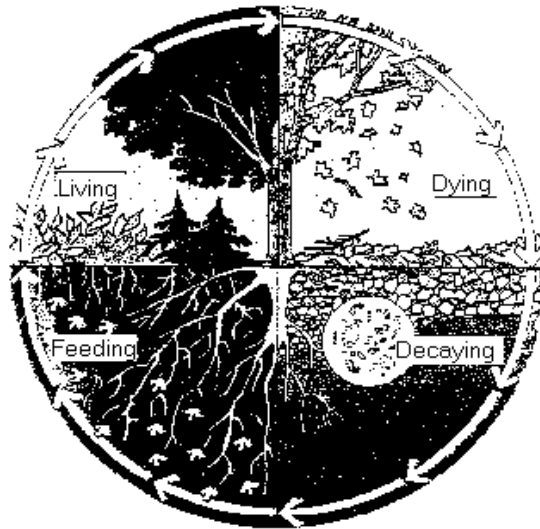
1. What is Compost?
  - A. Noun: A heap of rotting organic matter
  - B. Verb: Steps taken to make a heap and let it rot
2. Why Compost?
  - A. Ease landfill demands
    1. 18% of trash is yard waste
    2. 8% of trash is kitchen waste
  - B. PA Legislature bans some yard waste from landfills
  - C. Benefits of Composting
    1. Improves soil texture (workability)
    2. Loosens compacted soil so roots spread more easily
    3. Increases water-holding capacity of soil
    4. Provides trace elements deficient in many soils
    5. Enables minerals that were bound in soil to be absorbed more readily by plant roots
    6. Attracts beneficial soil microbes to poor soil
    7. Use as mulch to reduce need for water and fertilizer
3. Mechanics of Composting
  - A. Microorganisms (bacteria, fungi)
  - B. Food (carbon and nitrogen), air and water must be present in the right combination

## Getting Started

1. Two Methods of Composting
  - A. Active-requires constant maintenance and manipulation
  - B. Passive-minimal maintenance; pile not moved
  - C. Method depends on personal preference
2. Elements of a Compost Pile
  - A. Green material – nitrogen rich
    1. Fresh cut grass
    2. Kitchen waste – vegetable material only, **no** fats or dairy products
    3. Old garden plants (except diseased)
  - B. Brown material- carbon rich
    1. Dead leaves
    2. Straw or hay
    3. Sawdust or wood chips
  - C. Activators – bacteria rich
    1. Manure (fresh or aged)
    2. Garden soil
    3. Compost
  - D. Physical factors
    1. Oxygen – for bacteria to work quickly
    2. Water
    3. Heat (decomposition generates heat; sun not necessary)

3. Bin Construction
  - A. Materials – use material at hand (i.e. chicken wire, old wooden pallets, garbage cans, cinder block, 55 gallon drum, trench, pit)
  - B. One bin vs. multi-bin system
  
4. Make Your Pile
  - A. Composting takes place when the correct ratio of carbon, nitrogen, and moisture are present: 1 part (by volume) nitrogen, 2 parts (by volume carbon), 50% moisture (wrung-out sponge test)
  - B. Necessary Ingredients:
    1. Nitrogen sources: greens (grass clippings, weeds)
    2. Carbon sources: browns (dead leaves, chopped branches, dried grass)
    3. ½” of soil (as activator)
    4. Water (for moisture)
  - C. Begin by layering ingredients:
    1. Lay out base of crisscrossed branches (for air circulation)
    2. Alternate layers of browns, greens, soil
    3. Sprinkle layers with water
  - D. Compost should be mixed approximately once a week (more for active pile; less for passive pile)
  - E. Optimum size of pile is roughly 4 ft. x 4 ft. x 4 ft. (difficult for smaller piles to stay hot; larger piles too difficult for homeowner to turn)
  - F. **Most important lesson – use what you have!** Composting is supposed to be fun!
  
5. Fine Tuning Your Compost Pile
  - A. Maintain proper aeration: Ideally 2% oxygen in middle of pile (too little air, pile becomes anaerobic and smells)  
Suggestions: perforated PVC pipe through pile; crisscrossed sticks or stems
  - B. Maintain correct moisture level: 50% ideal – hand is the best tester (consistency of a wrung-out sponge)
    1. Too much moisture slows decomposition by suffocating microorganisms and may leach out nutrients
    2. Too little moisture stops decomposition and may lower temperature
  - C. Chop material into small enough pieces. Composting is a surface phenomenon: the smaller the pieces, the more surface area the microorganisms have to work on and the faster decomposition occurs.
  - D. Do Not Use:
    1. Diseased plant material – home compost piles don’t get hot enough to kill disease organisms, weed seeds, or other hardy seeds.
    2. Pet waste – it smells; may carry parasites
    3. Meat, dairy products, oils, etc. – may become rancid; attract unwanted pests
  - E. Bury kitchen waste in center of pile or keep lid on container to discourage unwanted animal pests.

6. Using Your Finished Compost
- A. Compost is finished when it begins to release nutrients – takes 60 to 90 days for compost to “mature.”  
Prior to that, it is considered “immature.”
  - B. “Fast” compost looks brown but is still decomposing.
  - C. ALWAYS screen compost prior to use, using hardware cloth of ¼” to ½” squares.
    - 1. Incorporate mature compost into top layer of soil to make nutrients quickly accessible to plant roots. No need to add additional nitrogen, as decomposition is complete.
    - 2. Use immature compost (1” particle size, unscreened) as a mulch, where it continues to decompose. Does not leach nitrogen IF LEFT ON TOP of soil. No need to add fertilizer or till soil.
    - 3. Keep unfinished compost in pile for further decomposition, or add to new pile as activator.
    - 4. If used as potting soil, use ratio of 30% compost, 50% peat and 20% perlite. DO NOT STERILIZE, as beneficial microorganisms would be killed.
    - 5. Compost is not recommended for starting seeds because of “damping off” and excessive soluble salts.



**Composters have a sense of “humus”**

MATERIALS THAT SHOULD AND SHOULD NOT BE IN A COMPOST PILE			
CAN BE SAFELY ADDED		SHOULD NOT BE ADDED	
Aquatic weeds	Leaves	Butter	Lime
Bread	Paper scraps	Bones	Mayonnaise
Coffee grounds	Sawdust	Cat manure	Meat
Egg shells	Straw	Cheese	Milk
Evergreen needles	Sod	Chicken	Oils
Fruit	Tea leaves	Coal ash	Peanut butter
Fruit peels and rinds	Vegetables	Dog manure	Salad dressing
Garden waste	Wood ash	Fish scraps	Sour cream
Grass clippings	Wood chips	Lard	Vegetable oil
Shredded newspaper		Paper products used for cleaning	

Materials that break down slowly should be mixed with easily decomposed materials to allow the pile to get hot. If a high-nitrogen source is not available, high-carbon wastes should be used as mulches. While materials such as wood chips and straw break down slowly, they also are bulking agents that improve the pile structure, allowing air circulation. If composting dense, high-nitrogen materials such as manure, the addition of a bulking agent may be required to facilitate the process.

The art of composting is discovering the mix of materials that will provide the best environment for the compost process. Mixing different materials of different sizes and textures helps to provide a structurally stable and well-drained compost pile. Diverse material also helps maintain the proper C:N ratio and an efficient process.

Some gardeners are concerned about composting grass clippings that have been treated with pesticides. The following table lists the persistence of some common lawn herbicides in soil.

Composting as an accelerated decomposition process biodegrades many compounds faster than soil degradation. If yard waste has been composted at least one year, pesticide residue should not be a problem when the compost is used.

Sod can be incorporated into a compost pile; it can also be composted in a holding system with or without a structure. Large quantities of fresh, stripped sod should be piled with the roots up and grass down. The sod should then be wetted thoroughly and covered with a tarp to keep light out. A large pile of sod may take one to three years to decompose completely. Small quantities of sod will decompose more quickly if broken into small pieces and mixed with other wastes in holding or turning units.

PERSISTENCE OF SOME COMMON HERBICIDES IN SOIL		
Common Name	Trade Name	Longevity in Soil (months)
Benefin	Balan, Balfin	4-8
DCPA	Dacthal	4-8
Bensulide	Betasan, Prefar	6-12
Glyphosate	Roundup, Kleenup	<1
2,4-D	(many formulations)	1-2
MCPP	(many formulations)	1-2
Dicamba	Banvel	3-12

## Composting Methods—Comparison

Type	Advantages	Disadvantages
Slow Outdoor Pile	Easy to start and add to; low maintenance. Material can be added as accumulated.	Can take one year or more to decompose. Nutrients can be lost to leaching; can be smelly and attract unwanted pests.
Hot Outdoor Pile	Fast decomposition; weed seeds and pathogens killed. More nutrient rich because of less leaching; less likely to attract pests.	High maintenance. Requires lots of aeration and pile management; works best when lots of material is added at one time.
Bins and Boxes	Neat appearance; holds heat better than a pile; deters pests. Lids keep rain out. Decomposition can be quite rapid if turned regularly.	Takes time to build the bins; costly to buy them.
Tumblers	Self-contained, less messy. Can produce fast compost. Easy to aerate by turning; odor not usually a problem. No nutrient loss from leaching.	Tumblers are costly; volume relatively small; works better if material is added all at once.
Pit Composting	Quick and easy; no maintenance; no investment in materials.	Good way to compost small amounts of organic matter.
Sheet Composting	Can handle large amounts of organic matter; no containers required; good way to improve soil in large areas.	Decomposition takes several months. Requires effort to till material into soil.
Plastic Bag or Garbage Can	Easy to do year-round; can be done in small space; can be done indoors; requires no back labor.	Is mostly anaerobic; smell can be a problem. May attract insects. Carbon/nitrogen ratio must be regulated to avoid a mess.

## Three Compost Recipes

There are many ways to make good compost. These recipes are just a few basics to learn from. Choose the composting recipe that suits the amount of time and effort you want to spend.

### Slow Compost

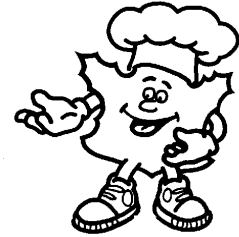
Ready in 12-18 months

#### Ingredients:

- Mixed fresh yard waste
- Rainwater

#### Directions:

- Set compost bin in an area where it is sure to get rained on, preferably out of direct sunlight.
- Put yard wastes in bin as you garden or mow.
- Option: Cover top of compost with old carpet scrap or black plastic film to keep pile moist in summer.
- In one year material at the bottom and center of the bin should be composted. Sift or sort out large, undecomposed materials and use to start a new batch.



### Medium Compost

Ready in 6-9 months

#### Ingredients:

- Mixed fresh green and brown yard wastes as available. Nitrogen fertilizer (10-0-0 or bloodmeal) if needed to balance excess brown, woody wastes
- Rainwater and additional water if needed
- Scraps of old carpet or heavy black plastic

#### Directions:

- Put yard waste in bin as you garden or mow. Moisten dry materials as they are added to bin. Chop up large, tough materials using a machete or flat edge spade, or run them through a yard waste shredder.
- Cover wastes with old carpet scrap or black plastic film.
- Dig into pile monthly. If middle of pile is dry, mix and moisten materials. If pile is woody and not decomposing, add grass or nitrogen fertilizer.
- In six months the bottom and center of the bin should be ready to harvest. Use the uncomposted materials to start a new batch.

### Fast Compost

Ready in one month

#### Ingredients:

- 2-3 Wheelbarrows green grass clippings, flower stalks, and weeds
- 2-3 Wheelbarrows fall leaves, corn stalks or dead, brown plants
- Water

#### Directions:

- Lay 6" of coarse stalks or woody wastes at bottom of bin.
- Add a 6" thick layer of fresh grass clippings or other "green" wastes. Chop large, tough materials using a machete, flat edge spade, or run them through a yard waste shredder.
- Repeat step 2 with leaves and other "brown" yard wastes.
- Mix layers with a garden fork or compost turning tool and moisten dry materials.
- Repeat steps 2-4 until bin is full.

Monitor heat in pile. When pile has heated and starts to cool (about one week) turn it, burying dry wastes from edges in middle of new pile. Water if needed. Turn again in a week. Let cure for two weeks before using.

# Recycling Turfgrass Clippings

Grass clippings and other yard debris represent a large percentage of solid waste deposited in landfills. An analysis of the composition of residential waste in Cincinnati, Ohio showed that yard debris (leaves, prunings, and grass clippings) accounted for nearly 20 percent of the total. A study in Plano, Texas (population 80,000) revealed that over 700 tons of grass clippings were collected and disposed of in landfills each week. Collection and disposal of this waste material is expensive and takes up valuable landfill space.

The obvious solution to the clipping disposal problem is recycling. Recycling can be easily accomplished by returning the clippings to the lawn. If performed correctly, returning grass clippings should not detract from the appearance of the lawn or cause an accumulation of thatch. In fact, this practice will reduce the labor involved in bagging and return essential nutrients to the soil.

Research at Penn State has shown that over a three-year period, the leaf clippings from Kentucky bluegrass contained between 46 to 59 percent of nitrogen (N) applied as fertilizer. When clippings are returned, a substantial amount of nitrogen and other nutrients can be used by the turf, significantly reducing fertilizer requirements.

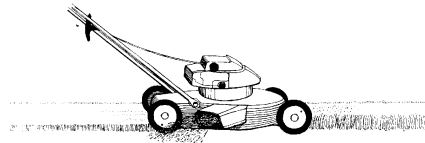
Several tools and management practices can be used to make the recycling process more efficient. A few of the more effective practices are described below.

## Mowing practices

For clippings to break down rapidly, the lawn should be mowed frequently enough so that large amounts of leaf residue do not remain on the surface of the turf. Weekly mowing often is not frequent enough, especially during the peak period of leaf growth in spring. As a rule of thumb, no more than one-third of the leaf tissue should be removed during the mowing operation. The turf should be mowed at the suggested height of cut for the predominant species present (see Table 1).

Table 1. Suggested mowing heights for the cool-season turfgrass species used in Pennsylvania.

Species	Mowing Height (Inches)
Kentucky bluegrass	1.5-2.5
Perennial ryegrass	1.5-2.0
Fine fescues	2.0-2.5
Tall fescues	2.0-3.0



Some people are concerned that returning clippings to the lawn may result in thatch accumulation. Thatch is the tightly intermingled layer of partially decomposed stems and roots which develops between actively growing green vegetation and the soil surface. Because turf clippings are composed mostly of leaf tissue that decomposes rapidly, they do not contribute to thatch.

If the soil pH near the surface is low, populations of microorganisms which decompose the clippings may be reduced. To insure that adequate microbial decomposition occurs, maintain the soil at a pH between 6.3 and 7.0. Soil pH can be determined through a soil test available from your county cooperative extension office.

## Mulching mowers

Mulching mowers are rotary mowers designed to keep the clippings circulating under the mower deck so the grass blades will be chopped into finer pieces. This hastens clipping decomposition and reduces the amount of residue on the lawn. Some of the newer mowers have special features that facilitate mulching, such as multiple rippled blades and dome-shaped decks that allow better circulation of clippings. Lawn mower manufacturers also offer mulching ‘kits’—plates that block discharge and force the clippings back through the blades.

## Fertilization

The amount and type of fertilizer used, as well as the time of year the fertilizer is applied, will greatly influence the rate of leaf growth of turfgrasses. Heavy applications of soluble nitrogen fertilizer in early to mid-spring will produce a large flush of growth. Nitrogen sources used for home lawns should contain at least 33 percent water-insoluble nitrogen. Nitrogen fertilizer should be applied in relatively small amounts (usually no greater than 1.5 lb N/1000 sq ft) in two to three applications over the course of a growing season. Suggested nitrogen fertilizer rates for cool-season turfgrasses grown in Pennsylvania are listed in Table 2. The amounts of other nutrients (phosphorus, potassium, calcium and magnesium) to apply should be based on soil test recommendations. Suggested times to fertilize turf in most areas of Pennsylvania are mid- to late May, early to mid-September, and in late fall before the ground freezes.

Table 2. Suggested nitrogen fertilizer rates for cool-season turfgrass species used in Pennsylvania.

Species	Suggested rates* (lbs N/1000 sq ft/year)
Kentucky bluegrass	2.0-4.0
Perennial ryegrass	2.0-3.5
Fine fescues	1.0-2.0
Tall fescue	2.0-3.0

**\*Use rates in the high ranges for turf grown in infertile soils and rates in the low ranges for turf grown in inherently fertile soils.**

## Irrigation

Excessive irrigation can increase leaf growth of turfgrasses and increase mowing frequency. This practice eventually will weaken the turf and may cause disease problems. A sufficient amount of water should be applied to insure that the entire root system will be moistened. If water runs off the lawn before soaking into the soil, turn off the sprinkler, allow the water to soak in, and continue irrigation. Frequent light watering encourages shallow rooting and germination of weed seeds. Excess water saturates the soil and results in damage to the roots.

## Special Considerations

Occasionally, periods of prolonged rainfall make mowing difficult or impossible. In such cases, the turf becomes overgrown and large clumps of grass may remain on the lawn following mowing. The clumps of grass can be removed after drying to facilitate dispersal; composted; or removed, air-dried, and used as mulch around trees, shrubs, or gardens. If the turf has been treated with broadleaf herbicides (2,4-D, MCP, dicamba, etc.) prior to mowing, do not place clippings around trees, shrubs, or garden plants.

PENN STATE College of Agricultural Sciences Cooperative Extension  
Prepared by Peter J. Landschoot, Associate Professor of Turfgrass Management.

This publication is available in alternative media on request.

Issued in furtherance of Cooperative Extension Work, Acts of Congress May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture and the Pennsylvania Legislature. L.F. Hood, Director of Cooperative Extension, The Pennsylvania State University.

The Pennsylvania State University is committed to the policy that all persons shall have equal access to programs, facilities, admission, and employment without regard to personal characteristics not related to ability, performance, or qualifications as determined by University policy or by state or federal authorities. The Pennsylvania State University does not discriminate against any person because of age, ancestry, color, disability or handicap, national origin, race, religious creed, sex, sexual orientation, or veteran status. Direct all inquiries regarding the nondiscrimination policy to the Affirmative Action Director, The Pennsylvania State University, 201 Willard Building, University Park, PA 16802-2801; tel. (814) 863-0471; TDD (814) 865-3175.

© The Pennsylvania State University 1991

## What's Happening Here?

### Troubleshooting Guide

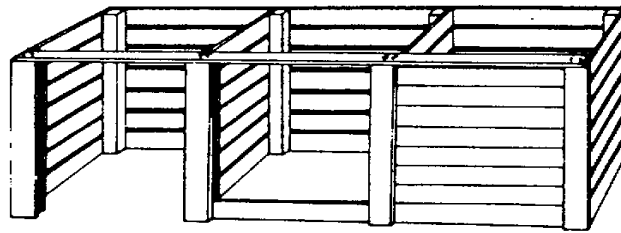
What's My Pile Doing?	Why?	What Should I Do?
Smells terrible	Not enough air	Turn pile; Install air channels (corn stalks, thick stems, PVC pipe)
	Too wet	Add some dry material (straw, sawdust, wood chips, dry leaves)
	Too much green material	Mix in brown material (straw, sawdust, dry leaves)
	Wrong material used in pile	Do not use animal or dairy products, oil or pet waste
Center is dry	Not wet enough	Turn pile and add water as you mix it
Damp and warm only in middle	Pile is too small	Make a bigger pile; mix in old material
Cool to the touch	Too dry	Mix pile and add water
	Not enough air	Mix pile and add air channels
	Not enough nitrogen	Add green material (fresh grass clippings, manure, blood meal or urea fertilizer)
Damp and sweet smelling but doesn't heat up	Needs nitrogen	Add green material (fresh grass clippings, manure, blood meal or urea fertilizer)
Attracts insects and animals	Normal	Bury kitchen waste in middle of the pile; put a lid on the bin to deter animals
	Wrong material used in the pile	Do not use animal or dairy products, oils, pet waste

## ACTIVE vs. PASSIVE

### Different types of holding units for different purposes

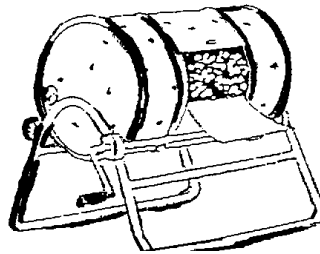
**Wooden 3-bin turning unit**

Ideal for making fast compost; large source of raw material (1 passive, 1 active, 1 finished)



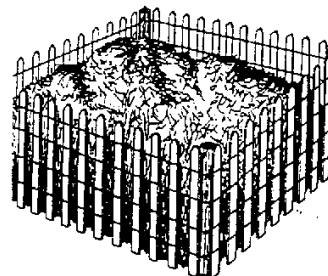
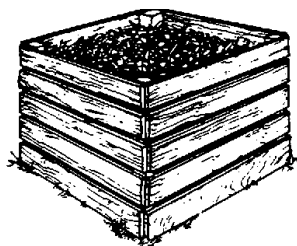
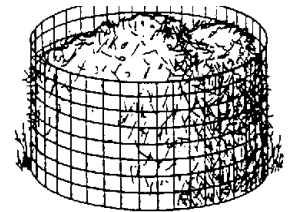
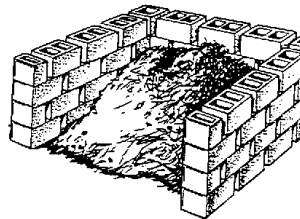
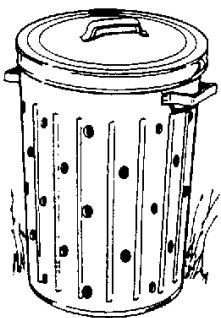
**Rotating Barrel Composter**

Makes compost very fast; small quantities of material at one time (leaves, grass clippings)



**One-bin holding units**

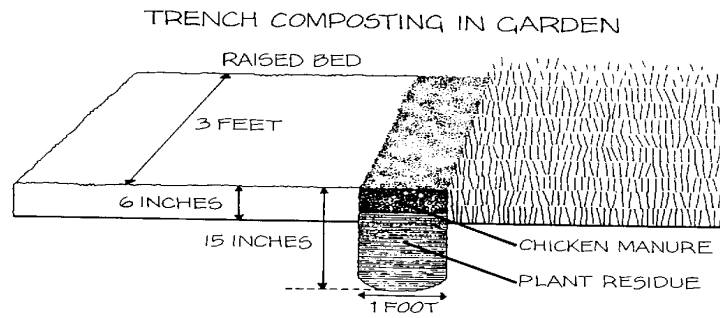
Passive systems; steady stream of materials added (i.e. kitchen scraps)



# IN-GROUND SYSTEMS

## Trench Method

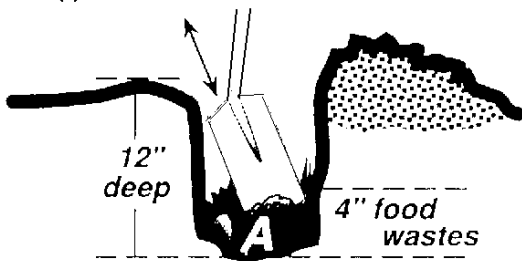
Good for leaves and yard waste; start in Fall for Spring planting



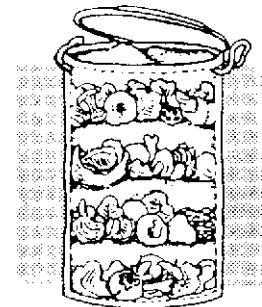
## Holes for Small Spaces

Great for kitchen waste; small quantities

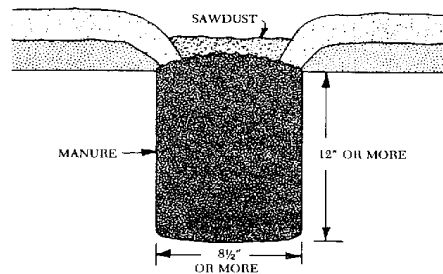
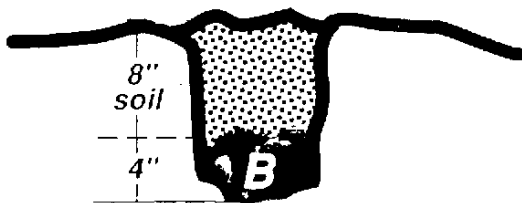
First, dig a hole about a foot deep. Put 3 - 4" of food waste at the bottom of the hole, and use a shovel to chop and mix the wastes into the soil (A):



5 Gallon Bucket with lid; cut off bottom of bucket and sink into hole approximately 10". Fill with chopped kitchen waste. Relocate when bucket is 1/2 full. Cover waste with soil.



Cover the wastes under at least 8" of soil to keep rodents and pets from digging them up (B):



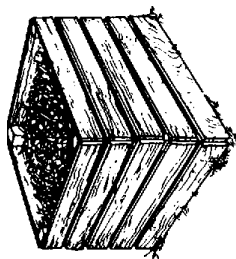
### PLANS FOR CONSTRUCTING COMPOST BINS

#### WOODEN-PALLET HOLDING UNIT — YARD WASTE ONLY

A holding unit can be built using wooden pallets, or recycled plastic or lumber. Used pallets are often available from manufacturers and landfills.

##### Building a Holding Unit Using Wooden Pallets

1. Nail or wire four pallets together to make a four-sided bin at least 3 feet x 3 feet x 3 feet. The bin is then ready to use.
2. A fifth pallet can be used as a base, to allow more air to get into the pile and to increase the stability of the bin.



##### Building a Holding Unit Using Lumber

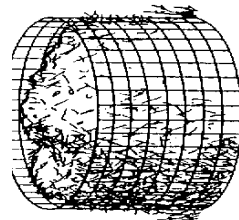
1. Saw the 8-foot lengths of 2 x 4 lumber into four pieces, each 4 feet long, to be used as corner posts.
2. Choose a 3-foot-square site for your compost bin. Use a sledgehammer to pound the four posts into the ground 3 feet apart at the corners of the square.
3. Saw each of the five 12-foot boards into four 3-foot pieces, allowing five boards to a side and, starting at the bottom, nail the boards to the posts to make a four-sided container. Leave 2 inches between the boards to allow air to get into the pile.
4. If you wish to decrease your composting time, build a second holding unit so that the wastes in one can mature while you add wastes to the other.

#### WIRE-MESH HOLDING UNIT — YARD WASTE ONLY

A wire-mesh holding unit is inexpensive and easy to build out of either galvanized chicken wire or hardware cloth. (Non-galvanized chicken wire can also be used, but will not last as long.) Posts provide more stability for a chicken wire bin, but make the bin difficult to move. A wire-mesh bin made without posts is easy to lift, and provides access to the compost that is already “done” at the bottom of the pile while the compost at the top of the pile is still decomposing.

##### Building a Wire-Mesh Holding Unit Using Chicken Wire

1. Fold back 3 to 4 inches of wire at each end of the cut piece to provide a strong, clean edge that will not poke or snag, and that will be easy to latch.
2. Stand the wire in a circle and set it in place for the compost pile.
3. Cut the heavy wire into lengths for ties. Attach the ends of the chicken wire together with the wire ties, using pliers.
4. Space wood or metal posts around the inside of the chicken-wire circle. Holding the posts tightly against the wire, pound them firmly into the ground to provide support.

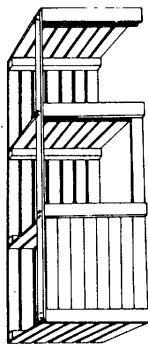


##### Building A Wire-Mesh Holding Unit Using Hardware Cloth

1. Trim the ends of the hardware cloth so that the wires are flush with a cross wire to prevent edges that could poke or scratch hands. Lightly file each wire along the cut edge to ensure safe handling when opening and closing the bin.
2. Bend the hardware cloth into a circle, and stand it in place for the compost pile.
3. Cut the heavy wire into lengths for ties. Attach the ends of the hardware cloth together with the wire ties, using pliers.

**WOODEN THREE-BIN TURNING UNIT — YARD WASTE ONLY**

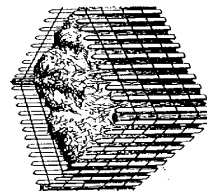
This turning unit is a permanent, sturdy structure, but it may be difficult to space the posts to the exact dimensions illustrated. Before cutting the removable slats into the grooves at the front of each bin, cut one slat and check for proper fit in each bin.



1. On level ground, set the eight posts as shown below using a post hole digger. Embed each post 2 feet into the ground. Be sure all posts are plumb (perpendicular to the ground). The top of each post should be at the same distance above the ground (48 inches).
2. Nail (or screw) on the back and side slats and dividers (pre-drill all holes to prevent splitting). Use adhesive on all joints. The bottom slats should be at ground level. Leave 1 1/2 inch (horizontal) spaces between slats. Note that the ends of the dividers should come out about 1 inch behind the front of the front posts, as shown in the illustration.
3. Install the fronts and cleats, as shown, for one of the center divider posts.
4. After the front slats have been sized and cut, slide them into place between the fronts and cleats as shown in the completed bin illustration.
5. (Optional). Nail the top rail to each front post, as shown in the completed bin illustration. Do not use adhesive, and do not drive the nails in fully, as they will be removed to allow access to the slats. The top rail is suggested to prevent the front posts from moving laterally. Another option to discourage this is to use 4 inch x 7 foot posts and embed them one foot deeper.

**SNOW FENCE HOLDING UNIT – YARD WASTE ONLY**

A snow fence holding unit is simple to make. It works best with four posts pounded into the ground for support.



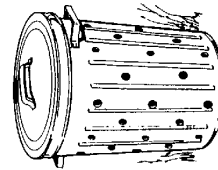
- Building a Snow Fence Holding Unit
1. Choose a 3 ft. square site for your holding unit, and pound the four wooden or metal posts into the ground 3 feet apart, at the corners of the square.
    2. Cut the heavy wire into lengths for ties. Attach the snow fence to the outside of the posts with the wire ties, using pliers.
    3. Attach the ends of the snow fence together in the same way, forming a 3 foot square enclosure.

**COVERED GARBAGE CAN COMPOSTER  
SUITABLE FOR FOOD & YARD WASTE**

A garbage can composter is inexpensive, easy to build, and approved for garden waste.

**Building a Garbage Can Composter**

1. Drill three rows of 1/4" holes 4 to 6 inches apart all around the sides of the garbage can. Then drill several holes in the base of the garbage can. The holes allow air movement and the drainage of excess moisture.
2. Place two to three inches of dry sawdust, straw, or wood chips in the bottom of the can to absorb excess moisture and let the compost drain.



**NEVER PUT FOOD WASTE IN AN “OPEN” PILE!**

## ACKNOWLEDGEMENTS

The material contained in this brochure was compiled from various sources. Our thanks to the PA Department of Environmental Protection, Penn State College of Agricultural Sciences, Northeast Regional Agricultural Engineering Service, and Penn State Master Gardeners of Westmoreland County for their input and guidance.

~~~~~

## Westmoreland Cleanways

A non-profit corporation working to keep Westmoreland County beautiful

Programs Available to Westmoreland County Residents:

- Recycling events for hard to dispose items (tires, batteries, scrap metal, appliances, electronics, household hazardous waste)\*
- Recycling information and referrals
- Westmoreland County Recycling Guide
- Fugitive Tire Program
- Backyard Composting Workshops
- Illegal dumpsite and litter cleanups
- Local road adoptions

\*For a complete schedule of Westmoreland Cleanways-sponsored events, please call (724) 836-4129, or check our website at [www.westmorelandcleanways.org](http://www.westmorelandcleanways.org).

~~~~~

## Westmoreland Cleanways —What We're All About

Westmoreland Cleanways is a non-profit 501(c)(3) organization whose mission is to protect, restore, and maintain the environmental qualities of our county for the benefit of all who live, work, and visit herein.

Westmoreland Cleanways accomplishes its mission by sponsoring and promoting programs that address the proper disposal of solid waste through recycling, special collections, and the cleanup of illegal dumpsites and littered areas. We educate the public through presentations, print media, and the web.

Westmoreland Cleanways became an Affiliate of Keep America Beautiful in 2011, attracting strategic partnerships and nationally recognized litter prevention, recycling, education, and beautification programs to benefit our community.

Westmoreland Cleanways initiates and facilitates programs by bringing together a network of volunteers, industry leaders, and state and local government representatives to provide services in the most efficient and economical manner. Westmoreland Cleanways is funded by Westmoreland County, member fees, private donations, sponsorships, and grants. Volunteers donate time, energy, and expertise to carry out our mission.

To learn more about how you can participate in Westmoreland Cleanways' mission, visit us on the web at [www.westmorelandcleanways.org](http://www.westmorelandcleanways.org), or call 724-836-4129.

Westmoreland Cleanways  
226 Donohoe Road Suite 101 Greensburg, PA 15601-7470  
Phone: (724) 836-4129 Fax: (724) 836-5597  
e-mail: [info@westmorelandcleanways.org](mailto:info@westmorelandcleanways.org) Web address: [www.westmorelandcleanways.org](http://www.westmorelandcleanways.org)